

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12059.

Received at London Office

22 DEC 1944

Date of writing Report 15th Dec. 44 When handed in at Local Office 19th Dec. 44 Port of MANCHESTER.

No. in Survey held at MANCHESTER. Date, First Survey 21st Oct. 1942 Last Survey 12th Dec. 1944. Number of Visits Nine.

Single on the ~~Turn~~ Triple Screw vessel *7 Empire Allenby*
3/5 EMPIRE ALLENBY
Built at ~~SUNDERLAND~~ *J.L. THOMPSON & CO. LTD* Yard No. 633
By whom built ~~N.E. Marine Co's~~ *MACH. INSTALLING* No. 3074 When built 1944.Owners Port belonging to 54090
Engine 54091
Oil Engines made at ASHTON-U-LYNE. By whom made National Gas & O.E. Co. Ltd. No. 54092 When made 1944.
Generators made at BIRMINGHAM. By whom made G.E.C. Co. No. 56172/4/5/6. When made
No. of Sets 3 Engine Brake Horse Power 300 Nom. Horse Power as per Rule 86 Total Capacity of Generators 180 Kilowatts.

OIL ENGINES, &c.—Type of Engines Vertical Heavy Oil Engine. 2 or 4 stroke cycle 4 Single or double acting Single.

Maximum pressure in cylinders 800 lbs/sq. in. Diameter of cylinders 10" Length of stroke 13" No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 12 3/8" Is there a bearing between each crank Yes

Revolutions per minute 550 Flywheel dia. 3' 7" Weight 2600 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals as per Rule Approved. 7.25" Crank pin dia. 7" Crank Webs Mid. length breadth 8 1/2" Thickness parallel to axis -
as fitted 7.25" Mid. length thickness 2.15/16" Thickness around eye hole Solid.Flywheel Shaft, diameter as per Rule Flywheel mounted on crankshaft Intermediate Shafts, diameter as per Rule - Thickness of cylinder liners 13/16"
as fitted coupling.

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced.

Are the cylinders fitted with safety valves Yes One incorporated Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Water cooled.

Cooling Water Pumps, No. with engine. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size One incorporated with Engine.

Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -

Scavenging Air Pumps, No. - Diameter - Stroke - Driven by G.3569

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate Lloyd's No. 3027.

Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Handholes 5" x 3 1/2"

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

Seamless, lap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -

Starting Air Receivers, No. One Total cubic capacity 11 cu.ft. Internal diameter 19 1/8" thickness 7/16"

Seamless, lap welded or riveted longitudinal joint Riveted Material M.S. Range of tensile strength 28/32 tons Working pressure by Rules 350 lbs/sq. in.

ELECTRIC GENERATORS:—Type Compound Wound, continuous rating, fan ventilated.

Pressure of supply 220 volts. Full Load Current 820 Amperes. Direct or Alternating Current D.C.

If alternating current system, state the periodicity - Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off Yes

Generators, are they compounded as per rule Yes is an adjustable regulating resistance fitted in series with each

shunt field - Are all terminals accessible, clearly marked, and furnished with sockets Yes

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule Yes

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test - and do the results comply with the requirements -

If the generators are 100 kw. or over have they been built and tested under survey Yes. Certificate attached.

PLANS. Are approved plans forwarded herewith for Shafting 26.10.43. Receivers Separate Tanks
(If not, state date of approval)

SPARE GEAR AS PER RULE REQUIREMENTS.

These 3 sets of Oil Engine/Elec. Generators
have been satisfactorily fitted on board
and tested under full load
on *3/5 EMPIRE ALLENBY*
J. L. Thompson & Co. Ltd. Yard No. 633

Awatt
Newcastle on Tyne
10/6/45

The foregoing is a correct description,

R. K. E. E. E.

THE NATIONAL GAS AND OIL ENGINE CO. LTD.

Manufacturer.



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Lloyd's Register
Foundation

002798-002801-0241

PILLA
Centre
Stiff
Plat
STRINC
Uppe
Str
STR
Flat Plate
Bottom P
Strakes
Bilge Pla
Strakes
Side Pla
Strakes
Upper I
strake
Upper I
strake
Strake b
strake
Strake b
strake i
Poop Side
Bridge Si
Forecastl
MIDSHIP
COLLISIO
AFTER PI
STEEL

Dates { During progress of work in shops - - } 21.10.42, 4.7.44, 25.7.44, 28.7.44, 8.9.44, 6.10.44, 19.10.44, 7.11.44, 12.12.44
of Survey { During erection on board vessel - - - }
while building { Total No. of visits }
Dates of Examination of principal parts - Cylinders 4.7.44. 28.7.44.
LLOYD'S 7349 21.10.42. 25.7.44. 6.10.44.
Connecting rods 7349 21.10.42. Crank and Flywheel shafts 16.3.44, 14.10.43, 11.11.43.
7349 21.10.42. Intermediate shafts -
Crank and Flywheel shafts, Material O. H. Steel. Identification Marks 2541. FH. 16.3.44.
2153. FH. 14.10.43.
2154. FH. 11.11.43.
Intermediate shafts, Material - Identification Marks -
Identification marks on Air Receivers LLOYD'S No. 3027. LLOYD'S TEST. 550 lbs. W.P. 350 lbs. F.C.L. 8.11.44.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel J. L. Thompson & Co., Yard No. 631.

General Remarks (State quality of workmanship, opinions as to class, &c. THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. WORKMANSHIP AND MATERIALS ARE GOOD AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS GAVE SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

Im 4.39. - Transfer, (MADE AND PRINTED IN ENGLAND)

The amount of Fee ... £ 26 : 5 0
Travelling Expenses (if any) £ 2 : 5 0
When applied for, 19.12.44.
When received, 19.

Committee's Minute FRI. 20 JUL 1945
Assigned Su F.E. machy. sph

A. G. Smith
Surveyor to Lloyd's Register of Shipping.